

FEDERAL OPERATING PERMIT

A FEDERAL OPERATING PERMIT IS HEREBY ISSUED TO

Occidental Permian Ltd.

AUTHORIZING THE OPERATION OF

Wasson CO₂ Recovery Plant
Crude Petroleum and Natural Gas

LOCATED AT

Yoakum County, Texas

Latitude 33° 0' 35" Longitude 102° 45' 12"

Regulated Entity Number: RN100226687

This permit is issued in accordance with and subject to the Texas Clean Air Act (TCAA), Chapter 382 of the Texas Health and Safety Code and Title 30 Texas Administrative Code Chapter 122 (30 TAC Chapter 122), Federal Operating Permits. Under 30 TAC Chapter 122, this permit constitutes the permit holder's authority to operate the site and emission units listed in this permit. Operations of the site and emission units listed in this permit are subject to all additional rules or amended rules and orders of the Commission pursuant to the TCAA.

This permit does not relieve the permit holder from the responsibility of obtaining New Source Review authorization for new, modified, or existing facilities in accordance with 30 TAC Chapter 116, Control of Air Pollution by Permits for New Construction or Modification.

The site and emission units authorized by this permit shall be operated in accordance with 30 TAC Chapter 122, the general terms and conditions, special terms and conditions, and attachments contained herein.

This permit shall expire five years from the date of issuance. The renewal requirements specified in 30 TAC § 122.241 must be satisfied in order to renew the authorization to operate the site and emission units.

Permit No: O553 Issuance Date: _____

For the Commission

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General Terms and Conditions

The permit holder shall comply with all terms and conditions contained in 30 TAC § 122.143 (General Terms and Conditions), 30 TAC § 122.144 (Recordkeeping Terms and Conditions), 30 TAC § 122.145 (Reporting Terms and Conditions), and 30 TAC § 122.146 (Compliance Certification Terms and Conditions).

In accordance with 30 TAC § 122.144(1), records of required monitoring data and support information required by this permit, or any applicable requirement codified in this permit, are required to be maintained for a period of five years from the date of the monitoring report, sample, or application unless a longer data retention period is specified in an applicable requirement. The five year record retention period supersedes any less stringent retention requirement that may be specified in a condition of a permit identified in the New Source Review Authorization attachment.

If the permit holder chooses to demonstrate that this permit is no longer required, a written request to void this permit shall be submitted to the Texas Commission on Environmental Quality (TCEQ) by the Responsible Official in accordance with 30 TAC § 122.161(e). The permit holder shall comply with the permit's requirements, including compliance certification and deviation reporting, until notified by the TCEQ that this permit is voided.

The permit holder shall comply with 30 TAC Chapter 116 by obtaining a New Source Review authorization prior to new construction or modification of emission units located in the area covered by this permit.

All reports required by this permit must include in the submittal a cover letter which identifies the following information: company name, TCEQ regulated entity number, air account number (if assigned), site name, area name (if applicable), and Air Permits Division permit number(s).

Special Terms and Conditions: Emission Limitations and Standards, Monitoring and Testing, and Recordkeeping and Reporting

1. Permit holder shall comply with the following requirements:
 - A. Emission units (including groups and processes) in the Applicable Requirements Summary attachment shall meet the limitations, standards, equipment specifications, monitoring, recordkeeping, reporting, testing, and other requirements listed in the Applicable Requirements Summary attachment to assure compliance with the permit.
 - B. The textual description in the column titled "Textual Description" in the Applicable Requirements Summary attachment is not enforceable and is not deemed as a substitute for the actual regulatory language. The Textual Description is provided for information purposes only.

- C. A citation listed on the Applicable Requirements Summary attachment, which has a notation [G] listed before it, shall include the referenced section and subsection for all commission rules, or paragraphs for all federal and state regulations and all subordinate paragraphs, subparagraphs and clauses, subclauses, and items contained within the referenced citation as applicable requirements.
 - D. When a grouped citation, notated with a [G] in the Applicable Requirements Summary, contains multiple compliance options, the permit holder must keep records of when each compliance option was used.
 - E. Emission units subject to 40 CFR Part 63, Subpart ZZZZ as identified in the attached Applicable Requirements Summary table are subject to 30 TAC Chapter 113, Subchapter C, § 113.1090 which incorporates the 40 CFR Part 63 Subpart by reference.
 - F. Emission units subject to 40 CFR Part 63, Subpart HH as identified in the attached Applicable Requirements Summary table are subject to 30 TAC Chapter 113, Subchapter C, § 113.390 which incorporates the 40 CFR Part 63 Subpart by reference.
2. The permit holder shall comply with the following sections of 30 TAC Chapter 101 (General Air Quality Rules):
- A. Title 30 TAC § 101.1 (relating to Definitions), insofar as the terms defined in this section are used to define the terms used in other applicable requirements
 - B. Title 30 TAC § 101.3 (relating to Circumvention)
 - C. Title 30 TAC § 101.8 (relating to Sampling), if such action has been requested by the TCEQ
 - D. Title 30 TAC § 101.9 (relating to Sampling Ports), if such action has been requested by the TCEQ
 - E. Title 30 TAC § 101.10 (relating to Emissions Inventory Requirements)
 - F. Title 30 TAC § 101.201 (relating to Emission Event Reporting and Recordkeeping Requirements)
 - G. Title 30 TAC § 101.211 (relating to Scheduled Maintenance, Start-up, and Shutdown Reporting and Recordkeeping Requirements)
 - H. Title 30 TAC § 101.221 (relating to Operational Requirements)
 - I. Title 30 TAC § 101.222 (relating to Demonstrations)

- J. Title 30 TAC § 101.223 (relating to Actions to Reduce Excessive Emissions)
3. Permit holder shall comply with the following requirements of 30 TAC Chapter 111:
- A. Visible emissions from stationary vents with a flow rate of less than 100,000 actual cubic feet per minute and constructed after January 31, 1972 that are not listed in the Applicable Requirements Summary attachment for 30 TAC Chapter 111, Subchapter A, Division 1 , shall not exceed 20% opacity averaged over a six-minute period. The permit holder shall comply with the following requirements for stationary vents at the site subject to this standard:
- (i) Title 30 TAC § 111.111(a)(1)(B) (relating to Requirements for Specified Sources)
 - (ii) Title 30 TAC § 111.111(a)(1)(E)
 - (iii) Title 30 TAC § 111.111(a)(1)(F)(i), (ii), (iii), or (iv)
 - (iv) For emission units with vent emissions subject to 30 TAC § 111.111(a)(1)(B), complying with 30 TAC § 111.111(a)(1)(F)(ii), (iii), or (iv), and capable of producing visible emissions from, but not limited to, particulate matter, acid gases and NO_x, the permit holder shall also comply with the following periodic monitoring requirements for the purpose of annual compliance certification under 30 TAC § 122.146. These periodic monitoring requirements do not apply to vents that are not capable of producing visible emissions such as vents that emit only colorless VOCs; vents from non-fuming liquids; vents that provide passive ventilation, such as plumbing vents; or vent emissions from any other source that does not obstruct the transmission of light. Vents, as specified in the “Applicable Requirements Summary” attachment, that are subject to the emission limitation of 30 TAC § 111.111(a)(1)(B) are not subject to the following periodic monitoring requirements:
 - (1) An observation of stationary vents from emission units in operation shall be conducted at least once during each calendar quarter unless the emission unit is not operating for the entire quarter.
 - (2) For stationary vents from a combustion source, if an alternative to the normally fired fuel is fired for a period greater than or equal to 24 consecutive hours, the permit holder shall conduct an observation of the stationary vent for each such period to determine if visible emissions are present. If such period is greater than 3 months,

observations shall be conducted once during each quarter. Supplementing the normally fired fuel with natural gas or fuel gas to increase the net heating value to the minimum required value does not constitute creation of an alternative fuel.

- (3) Records of all observations shall be maintained.
- (4) Visible emissions observations of emission units operated during daylight hours shall be conducted no earlier than one hour after sunrise and no later than one hour before sunset. Visible emissions observations of emission units operated only at night must be made with additional lighting and the temporary installation of contrasting backgrounds. Visible emissions observations shall be made during times when the activities described in 30 TAC § 111.111(a)(1)(E) are not taking place. Visible emissions shall be determined with each stationary vent in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 mile, away from each stationary vent during the observation. For outdoor locations, the observer shall select a position where the sun is not directly in the observer's eyes. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor. A certified opacity reader is not required for visible emissions observations.
- (5) Compliance Certification:
 - (a) If visible emissions are not present during the observation, the RO may certify that the source is in compliance with the applicable opacity requirement in 30 TAC § 111.111(a)(1) and (a)(1)(B).
 - (b) However, if visible emissions are present during the observation, the permit holder shall either list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2) or conduct the appropriate opacity test specified in 30 TAC § 111.111(a)(1)(F) as soon as practicable, but no later than 24 hours after observing visible emissions to determine if the source is in compliance with the opacity requirements. If an opacity test is

performed and the source is determined to be in compliance, the RO may certify that the source is in compliance with the applicable opacity requirement. However, if an opacity test is performed and the source is determined to be out of compliance, the permit holder shall list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2). The opacity test must be performed by a certified opacity reader.

- (c) Some vents may be subject to multiple visible emission or monitoring requirements. All credible data must be considered when certifying compliance with this requirement even if the observation or monitoring was performed to demonstrate compliance with a different requirement.

B. Emission limits on nonagricultural processes, except for the steam generators specified in 30 TAC § 111.153, shall comply with the following requirements:

- (i) Emissions of PM from any source may not exceed the allowable rates as required in 30 TAC § 111.151(a) (relating to Allowable Emissions Limits)
- (ii) Sources with an effective stack height (h_e) less than the standard effective stack height (H_e), must reduce the allowable emission level by multiplying it by $[h_e/H_e]^2$ as required in 30 TAC § 111.151(b)
- (iii) Effective stack height shall be calculated by the equation specified in 30 TAC § 111.151(c)

4. The permit holder shall comply with the following requirements for units subject to any subpart of 40 CFR Part 60, unless otherwise stated in the applicable subpart:

- A. Title 40 CFR § 60.7 (relating to Notification and Recordkeeping)
- B. Title 40 CFR § 60.8 (relating to Performance Tests)
- C. Title 40 CFR § 60.11 (relating to Compliance with Standards and Maintenance Requirements)
- D. Title 40 CFR § 60.12 (relating to Circumvention)
- E. Title 40 CFR § 60.13 (relating to Monitoring Requirements)
- F. Title 40 CFR § 60.14 (relating to Modification)

- G. Title 40 CFR § 60.15 (relating to Reconstruction)
 - H. Title 40 CFR § 60.19 (relating to General Notification and Reporting Requirements)
5. The permit holder shall comply with the requirements of 30 TAC Chapter 113, Subchapter C, § 113.100 for units subject to any subpart of 40 CFR Part 63, unless otherwise stated in the applicable subpart.

Additional Monitoring Requirements

6. Unless otherwise specified, the permit holder shall comply with the compliance assurance monitoring requirements as specified in the attached “CAM Summary” upon issuance of the permit. In addition, the permit holder shall comply with the following:
- A. The permit holder shall comply with the terms and conditions contained in 30 TAC § 122.147 (General Terms and Conditions for Compliance Assurance Monitoring).
 - B. The permit holder shall report, consistent with the averaging time identified in the “CAM Summary,” deviations as defined by the deviation limit in the “CAM Summary.” Any monitoring data below a minimum limit or above a maximum limit, that is collected in accordance with the requirements specified in 40 CFR § 64.7(c), shall be reported as a deviation. Deviations shall be reported according to 30 TAC § 122.145 (Reporting Terms and Conditions).
 - C. The permit holder may elect to collect monitoring data on a more frequent basis and average the data, consistent with the averaging time specified in the “CAM Summary,” for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis. In no event shall data be collected and used in particular instances in order to avoid reporting deviations. All monitoring data shall be collected in accordance with the requirements specified in 40 CFR § 64.7(c).
 - D. The permit holder shall operate the monitoring, identified in the attached “CAM Summary,” in accordance with the provisions of 40 CFR § 64.7.
 - E. Except for emission units using a CEMS, COMS or PEMS which meets the requirements of 40 CFR § 64.3(d)(2), the permit holder shall conduct a once a month visual, audible, and/or olfactory inspection of the capture system to detect leaking components for any capture system associated with the control device subject to CAM. If the results of the following inspections indicate that the capture system is not working properly, the permit holder shall promptly take necessary corrective actions.

- F. The permit holder shall comply with the requirements of 40 CFR § 70.6(a)(3)(ii)(A) and 30 TAC § 122.144(1)(A)-(F) for documentation of all required inspections.
- 7. The permit holder shall comply with the periodic monitoring requirements as specified in the attached “Periodic Monitoring Summary” upon issuance of the permit. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the permit holder shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. The permit holder may elect to collect monitoring data on a more frequent basis and average the data, consistent with the averaging time specified in the “Periodic Monitoring Summary,” for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis. In no event shall data be collected and used in particular instances to avoid reporting deviations. Deviations shall be reported according to 30 TAC § 122.145 (Reporting Terms and Conditions).

New Source Review Authorization Requirements

- 8. Permit holder shall comply with the requirements of New Source Review authorizations issued or claimed by the permit holder for the permitted area, including permits, permits by rule, standard permits, flexible permits, special permits, permits for existing facilities including Voluntary Emissions Reduction Permits and Electric Generating Facility Permits issued under 30 TAC Chapter 116, Subchapter I, or special exemptions referenced in the New Source Review Authorization References attachment. These requirements:
 - A. Are incorporated by reference into this permit as applicable requirements
 - B. Shall be located with this operating permit
 - C. Are not eligible for a permit shield
- 9. The permit holder shall comply with the general requirements of 30 TAC Chapter 106, Subchapter A or the general requirements, if any, in effect at the time of the claim of any PBR.
- 10. The permit holder shall maintain records to demonstrate compliance with any emission limitation or standard that is specified in a permit by rule (PBR) or Standard Permit listed in the New Source Review Authorizations attachment. The records shall yield reliable data from the relevant time period that are representative of the emission unit’s compliance with the PBR or Standard Permit. These records may include, but are not limited to, production capacity and throughput, hours of operation, safety data sheets (SDS), chemical composition of raw materials, speciation of air contaminant data, engineering calculations, maintenance records, fugitive data, performance tests,

capture/control device efficiencies, direct pollutant monitoring (CEMS, COMS, or PEMS), or control device parametric monitoring. These records shall be made readily accessible and available as required by 30 TAC § 122.144. Any monitoring or recordkeeping data indicating noncompliance with the PBR or Standard Permit shall be considered and reported as a deviation according to 30 TAC § 122.145 (Reporting Terms and Conditions).

Compliance Requirements

11. The permit holder shall certify compliance in accordance with 30 TAC § 122.146. The permit holder shall comply with 30 TAC § 122.146 using at a minimum, but not limited to, the continuous or intermittent compliance method data from monitoring, recordkeeping, reporting, or testing required by the permit and any other credible evidence or information. The certification period may not exceed 12 months and the certification must be submitted within 30 days after the end of the period being certified.
12. Use of Discrete Emission Credits to comply with the applicable requirements:
 - A. Unless otherwise prohibited, the permit holder may use discrete emission credits to comply with the following applicable requirements listed elsewhere in this permit:
 - (i) Title 30 TAC Chapter 115
 - (ii) Title 30 TAC Chapter 117
 - (iii) If applicable, offsets for Title 30 TAC Chapter 116
 - (iv) Temporarily exceed state NSR permit allowables
 - B. The permit holder shall comply with the following requirements in order to use the credit to comply with the applicable requirements:
 - (i) The permit holder must notify the TCEQ according to 30 TAC § 101.376(d)
 - (ii) The discrete emission credits to be used must meet all the geographic, timeliness, applicable pollutant type, and availability requirements listed in 30 TAC Chapter 101, Subchapter H, Division 4
 - (iii) The executive director has approved the use of the discrete emission credits according to 30 TAC § 101.376(d)(1)(A)
 - (iv) The permit holder keeps records of the use of credits towards compliance with the applicable requirements in accordance with 30 TAC § 101.372(h) and 30 TAC Chapter 122

- (v) Title 30 TAC § 101.375 (relating to Emission Reductions Achieved Outside the United States)

Risk Management Plan

13. For processes subject to 40 CFR Part 68 and specified in 40 CFR § 68.10, the permit holder shall comply with the requirements of the Accidental Release Prevention Provisions in 40 CFR Part 68. The permit holder shall submit to the appropriate agency either a compliance schedule for meeting the requirements of 40 CFR Part 68 by the date provided in 40 CFR § 68.10(a), or as part of the compliance certification submitted under this permit, a certification statement that the source is in compliance with all requirements of 40 CFR Part 68, including the registration and submission of a risk management plan.

Protection of Stratospheric Ozone

14. Permit holders at a site subject to Title VI of the FCAA Amendments shall meet the following requirements for protection of stratospheric ozone.
- A. Any on site servicing, maintenance, and repair on refrigeration and nonmotor vehicle air-conditioning appliances using ozone-depleting refrigerants or non-exempt substitutes shall be conducted in accordance with 40 CFR Part 82, Subpart F. Permit holders shall ensure that repairs on or refrigerant removal from refrigeration and nonmotor vehicle air-conditioning appliances using ozone-depleting refrigerants are performed only by properly certified technicians using certified equipment. Records shall be maintained as required by 40 CFR Part 82, Subpart F.

Permit Location

15. The permit holder shall maintain a copy of this permit and records related to requirements listed in this permit on site.

Permit Shield (30 TAC § 122.148)

16. A permit shield is granted for the emission units, groups, or processes specified in the attached "Permit Shield." Compliance with the conditions of the permit shall be deemed compliance with the specified potentially applicable requirements or specified potentially applicable state-only requirements listed in the attachment "Permit Shield." Permit shield provisions shall not be modified by the executive director until notification is provided to the permit holder. No later than 90 days after notification of a change in a determination made by the executive director, the permit holder shall apply for the appropriate permit revision to reflect the new determination. Provisional terms are not eligible for this permit shield. Any term or condition, under a permit shield, shall not be protected by the permit shield if it is replaced by a provisional term or condition or the basis of the term and condition changes.

Attachments

Applicable Requirements Summary

Additional Monitoring Requirements

Permit Shield

New Source Review Authorization References

Applicable Requirements Summary

Unit Summary	12
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Applicable Requirements Summary	13
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Note: A “none” entry may be noted for some emission sources in this permit’s “Applicable Requirements Summary” under the heading of “Monitoring and Testing Requirements” and/or “Recordkeeping Requirements” and/or “Reporting Requirements.” Such a notation indicates that there are no requirements for the indicated emission source as identified under the respective column heading(s) for the stated portion of the regulation when the emission source is operating under the conditions of the specified SOP Index Number. However, other relevant requirements pursuant to 30 TAC Chapter 122 including Recordkeeping Terms and Conditions (30 TAC § 122.144), Reporting Terms and Conditions (30 TAC § 122.145), and Compliance Certification Terms and Conditions (30 TAC § 122.146) continue to apply.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
F1-6	FUGITIVE EMISSION UNITS	N/A	40CFR60-KKK	40 CFR Part 60, Subpart KKK	No changing attributes.
FE1	FLARES	N/A	30TAC111	30 TAC Chapter 111, Visible Emissions	No changing attributes.
FE1	FLARES	N/A	30TAC111	40 CFR Part 60, Subpart A	No changing attributes.
GRPDEHY	GLYCOL DEHYDRATION	DEHY1, DEHY2	40CFR63HH	40 CFR Part 63, Subpart HH	No changing attributes.
GRPTURBINE	STATIONARY TURBINES	TE1, TE1R	40CFR60GG	40 CFR Part 60, Subpart GG	No changing attributes.
SULFURUNIT	GAS SWEETENING/SULFU R RECOVERY UNITS	N/A	30TAC112	30 TAC Chapter 112, Sulfur Compounds	No changing attributes.
SULFURUNIT	GAS SWEETENING/SULFU R RECOVERY UNITS	N/A	60LLL	40 CFR Part 60, Subpart LLL	No changing attributes.
TE1	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	N/A	111.111	30 TAC Chapter 111, Visible Emissions	No changing attributes.
TE1R	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	N/A	111.111	30 TAC Chapter 111, Visible Emissions	No changing attributes.

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
F1-6	EU	40CFR60-KKK	VOC	40 CFR Part 60, Subpart KKK	§ 60.632(f)	Use this provision instead of §60.485(d)(1). Each component is presumed to be in VOC service or in wet gas service unless it is not. For a component to be considered not in VOC service, it must be determined that the % VOC content can never be expected to exceed 10.0 % by wt. For a component to be considered in wet gas service, it must be determined that it contains or contacts the field gas before the extraction step in the process. To determine VOC content use the procedures in §60.63.	§ 60.632(f)	§ 60.632(f)	None
F1-6	EU	40CFR60-KKK	VOC	40 CFR Part 60, Subpart KKK	§ 60.633(f)	Reciprocating compressors in wet gas service are exempt from the compressor control requirements of §60.482-3.	None	§ 60.486(j) § 60.635(c)	None
F1-6	EU	40CFR60-KKK	VOC	40 CFR Part 60, Subpart KKK	§ 60.632(a) § 60.482-1(a) § 60.482-1(b) § 60.482-3(a) [G]§ 60.482-3(b) § 60.482-3(c) § 60.482-3(d) § 60.482-3(e)(1) § 60.482-3(e)(2) § 60.482-3(f) § 60.482-3(g)(1) § 60.482-3(g)(2) § 60.482-3(h)	Comply with the requirements for compressors as stated in §60.482-3 and §60.482-1(a), (b) and (d), except as provided in §60.633.	§ 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) § 60.485(d)(2) § 60.485(d)(3) § 60.485(f) § 60.632(d) [G]§ 60.633(h)	[G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) [G]§ 60.486(e)(2) [G]§ 60.486(e)(4) [G]§ 60.486(h) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) [G]§ 60.636

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					[G]§ 60.482-3(i) § 60.482-3(j) § 60.482-9(a) § 60.482-9(b) § 60.486(k)				
F1-6	EU	40CFR60-KKK	VOC	40 CFR Part 60, Subpart KKK	§ 60.632(a) § 60.482-1(a) § 60.482-1(b) § 60.482-2(a)(2) § 60.482-2(b)(1) [G]§ 60.482-2(b)(2) § 60.482-2(c)(1) [G]§ 60.482-2(c)(2) § 60.482-2(d) [G]§ 60.482-2(d)(1) § 60.482-2(d)(2) § 60.482-2(d)(3) [G]§ 60.482-2(d)(4) [G]§ 60.482-2(d)(5) [G]§ 60.482-2(d)(6) [G]§ 60.482-2(e) § 60.482-2(f) [G]§ 60.482-2(g) § 60.482-2(h) § 60.482-9(a) § 60.482-9(b) [G]§ 60.482-9(d) § 60.482-9(f) § 60.486(k)	Comply with the requirements for pumps in light liquid service as stated in §60.482-2 and §60.482-1(a), (b) and (d), except as provided in §60.633.	§ 60.482-1(f)(1) § 60.482-1(f)(2) [G]§ 60.482-1(f)(3) § 60.482-2(a)(1) [G]§ 60.482-2(b)(2) [G]§ 60.482-2(d)(4) § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) § 60.485(d)(2) § 60.485(d)(3) [G]§ 60.485(e) § 60.485(f) § 60.632(d) [G]§ 60.633(h)	[G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) [G]§ 60.486(e)(2) [G]§ 60.486(e)(4) [G]§ 60.486(f) [G]§ 60.486(h) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) [G]§ 60.636
F1-6	EU	40CFR60-KKK	VOC	40 CFR Part 60, Subpart KKK	§ 60.632(a) § 60.482-1(a) § 60.482-1(b) § 60.482-4(a) § 60.482-4(b)(1)	Comply with the requirements for pressure relief devices in gas/vapor service as stated in §60.482-4 and 60.482-1(a), (b) and	§ 60.482-4(b)(2) § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) § 60.485(d)(2)	[G]§ 60.486(a) § 60.486(e) § 60.486(e)(1) § 60.486(e)(3) [G]§ 60.486(e)(4)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) [G]§ 60.636

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 60.482-4(c) § 60.482-4(d)(1) § 60.482-4(d)(2) § 60.482-9(a) § 60.482-9(b) § 60.486(k) [G]§ 60.633(b)(3)	(d), except as provided in §60.633.	§ 60.485(d)(3) § 60.485(f) § 60.632(d) § 60.633(b)(1) § 60.633(b)(2) [G]§ 60.633(b)(3) [G]§ 60.633(b)(4)	§ 60.486(j) [G]§ 60.633(b)(4) [G]§ 60.635(b)	
F1-6	EU	40CFR60-KKK	VOC	40 CFR Part 60, Subpart KKK	§ 60.632(a) § 60.482-1(a) § 60.482-1(b) § 60.482-7(b) § 60.482-7(d)(1) § 60.482-7(d)(2) [G]§ 60.482-7(e) [G]§ 60.482-7(f) [G]§ 60.482-7(g) [G]§ 60.482-7(h) § 60.482-9(a) § 60.482-9(b) [G]§ 60.482-9(c) § 60.482-9(e) § 60.482-9(f) § 60.486(k)	Comply with the requirements for valves in gas/vapor service as stated in §60.482-7 and §60.482-1(a), (b) and (d), except as provided in §60.633.	§ 60.482-1(f)(1) § 60.482-1(f)(2) [G]§ 60.482-1(f)(3) § 60.482-7(a)(1) [G]§ 60.482-7(a)(2) § 60.482-7(c)(1)(i) § 60.482-7(c)(1)(ii) § 60.482-7(c)(2) § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) § 60.485(d)(2) § 60.485(d)(3) [G]§ 60.485(e) § 60.485(f) § 60.632(d) [G]§ 60.633(h)	[G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) [G]§ 60.486(e)(2) [G]§ 60.486(e)(4) [G]§ 60.486(f) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) [G]§ 60.636
F1-6	EU	40CFR60-KKK	VOC	40 CFR Part 60, Subpart KKK	§ 60.632(a) § 60.482-1(a) § 60.482-1(b) § 60.482-7(b) § 60.482-7(d)(1) § 60.482-7(d)(2) [G]§ 60.482-7(e) [G]§ 60.482-7(f) [G]§ 60.482-7(g) [G]§ 60.482-7(h) § 60.482-9(a) § 60.482-9(b) [G]§ 60.482-9(c) § 60.482-9(e)	Comply with the requirements for valves in light liquid service as stated in §60.482-7 and §60.482-1(a), (b) and (d), except as provided in §60.633.	§ 60.482-1(f)(1) § 60.482-1(f)(2) [G]§ 60.482-1(f)(3) § 60.482-7(a)(1) [G]§ 60.482-7(a)(2) § 60.482-7(c)(1)(i) § 60.482-7(c)(1)(ii) § 60.482-7(c)(2) § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) § 60.485(d)(2) § 60.485(d)(3) [G]§ 60.485(e)	[G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) [G]§ 60.486(e)(2) [G]§ 60.486(e)(4) [G]§ 60.486(f) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) [G]§ 60.636

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 60.482-9(f) § 60.486(k)		§ 60.485(f) § 60.632(d) [G]§ 60.633(h)		
F1-6	EU	40CFR60-KKK	VOC	40 CFR Part 60, Subpart KKK	§ 60.632(a) § 60.482-1(a) § 60.482-1(b) § 60.482-8(a) § 60.482-8(a)(2) § 60.482-8(b) § 60.482-8(c)(1) § 60.482-8(c)(2) § 60.482-8(d) § 60.482-9(a) § 60.482-9(b) [G]§ 60.482-9(d) § 60.482-9(f) § 60.486(k)	Comply with the requirements for pumps in heavy liquid service as stated in §60.482-8, except as provided in §60.633.	§ 60.482-8(a)(1) § 60.485(a) [G]§ 60.485(b) § 60.485(d)(2) § 60.485(d)(3) [G]§ 60.485(e) § 60.485(f) § 60.632(d) [G]§ 60.633(h)	[G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) [G]§ 60.636
F1-6	EU	40CFR60-KKK	VOC	40 CFR Part 60, Subpart KKK	§ 60.632(a) § 60.482-1(a) § 60.482-1(b) § 60.482-8(a) § 60.482-8(a)(2) § 60.482-8(b) § 60.482-8(c)(1) § 60.482-8(c)(2) § 60.482-8(d) § 60.482-9(a) § 60.482-9(b) § 60.486(k)	Comply with the requirements for pressure relief devices in light liquid service as stated in §60.482-8, except as provided in §60.633.	§ 60.482-8(a)(1) § 60.485(a) [G]§ 60.485(b) § 60.485(d)(2) § 60.485(d)(3) [G]§ 60.485(e) § 60.485(f) § 60.632(d) [G]§ 60.633(h)	[G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) [G]§ 60.636
F1-6	EU	40CFR60-KKK	VOC	40 CFR Part 60, Subpart KKK	§ 60.632(a) § 60.482-1(a) § 60.482-1(b) § 60.482-8(a) § 60.482-8(a)(2) § 60.482-8(b) § 60.482-8(c)(1) § 60.482-8(c)(2) § 60.482-8(d) § 60.482-9(a) § 60.482-9(b) § 60.486(k)	Comply with the requirements for pressure relief devices in heavy liquid service as stated in §60.482-8, except as provided in §60.633.	§ 60.482-8(a)(1) § 60.485(a) [G]§ 60.485(b) § 60.485(d)(2) § 60.485(d)(3) [G]§ 60.485(e) § 60.485(f) § 60.632(d) [G]§ 60.633(h)	[G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) [G]§ 60.636

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 60.482-8(d) § 60.482-9(a) § 60.482-9(b) § 60.486(k)		[G]§ 60.633(h)		
F1-6	EU	40CFR60-KKK	VOC	40 CFR Part 60, Subpart KKK	§ 60.632(a) § 60.482-1(a) § 60.482-1(b) § 60.482-8(a) § 60.482-8(a)(2) § 60.482-8(b) § 60.482-8(c)(1) § 60.482-8(c)(2) § 60.482-8(d) § 60.482-9(a) § 60.482-9(b) § 60.486(k)	Comply with the requirements for connectors as stated in §60.482-8, except as provided in §60.633.	§ 60.482-8(a)(1) § 60.485(a) [G]§ 60.485(b) § 60.485(d)(2) § 60.485(d)(3) [G]§ 60.485(e) § 60.485(f) § 60.632(d) [G]§ 60.633(h)	[G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) [G]§ 60.636
F1-6	EU	40CFR60-KKK	VOC	40 CFR Part 60, Subpart KKK	§ 60.632(a) § 60.482-1(a) § 60.482-1(b) § 60.482-8(a) § 60.482-8(a)(2) § 60.482-8(b) § 60.482-8(c)(1) § 60.482-8(c)(2) § 60.482-8(d) § 60.482-9(a) § 60.482-9(b) [G]§ 60.482-9(c) § 60.482-9(e) § 60.482-9(f) § 60.486(k)	Comply with the requirements for valves in heavy liquid service as stated in §60.482-8, except as provided in §60.633.	§ 60.482-8(a)(1) § 60.485(a) [G]§ 60.485(b) § 60.485(d)(2) § 60.485(d)(3) [G]§ 60.485(e) § 60.485(f) § 60.632(d) [G]§ 60.633(h)	[G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) [G]§ 60.636
F1-6	EU	40CFR60-KKK	VOC	40 CFR Part 60, Subpart KKK	§ 60.632(a) § 60.18 § 60.482-1(a) § 60.482-1(b) § 60.482-10(d) § 60.482-10(m)	Comply with the requirements for closed vent systems and control devices - flares - as stated in §60.482-10(d) and §60.482-1(a), (b) and (d),	§ 60.482-10(e) § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) § 60.485(d)(2) § 60.485(d)(3)	[G]§ 60.486(a) [G]§ 60.486(d) § 60.486(e) § 60.486(e)(1) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 60.486(k) § 60.633(g)	except as provided in §60.633.	§ 60.485(f) [G]§ 60.485(g) § 60.632(d)		
F1-6	EU	40CFR60-KKK	VOC	40 CFR Part 60, Subpart KKK	§ 60.632(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-10(f) [G]§ 60.482-10(g) § 60.482-10(h) § 60.482-10(i) [G]§ 60.482-10(j) [G]§ 60.482-10(k) § 60.482-10(m) § 60.486(k)	Comply with the requirements for closed vent systems and control devices - closed vent systems - as stated in §60.482-10(g) and §60.482-1(a), (b) and (d), except as provided in §60.633.	§ 60.485(a) [G]§ 60.485(b) § 60.485(d)(2) § 60.485(d)(3) § 60.485(f) § 60.632(d)	[G]§ 60.482-10(l) [G]§ 60.486(a) [G]§ 60.486(d) § 60.486(e) § 60.486(e)(1) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e)
FE1	EU	30TAC111	OPACITY	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(4)(A)	Visible emissions from a process gas flare shall not be permitted for more than five minutes in any two-hour period, except for emission event emissions as provided in §101.222(b).	§ 111.111(a)(4)(A)(i) § 111.111(a)(4)(A)(ii)	§ 111.111(a)(4)(A)(ii)	None
FE1	CD	30TAC111	OPACITY	40 CFR Part 60, Subpart A	§ 60.18(b) § 60.18(c)(1) § 60.18(c)(2) § 60.18(c)(3)(ii) § 60.18(c)(4)(i) § 60.18(c)(6) § 60.18(e)	Flares shall comply with paragraphs (c)-(f) of § 60.18.	§ 60.18(d) § 60.18(f)(1) § 60.18(f)(2) § 60.18(f)(3) § 60.18(f)(4)	None	None
GRPDEHY	EU	40CFR63 HH	112(B) HAPS	40 CFR Part 63, Subpart HH	§ 63.764(e)(1)(ii) § 63.764(a) § 63.764(e)(1) § 63.764(j) § 63.775(c)(8)	The actual average emissions of benzene from the glycol dehydration unit process vent are < 0.90 megagram/yr.	[G]§ 63.772(b)(2)	§ 63.774(d)(1) § 63.774(d)(1)(ii)	None
GRPTURBI NE	EU	40CFR60 GG	SO ₂	40 CFR Part 60, Subpart GG	§ 60.333(b)	No stationary gas turbine shall burn any fuel which	§ 60.334(h) § 60.334(h)(1)	§ 60.334(i) § 60.334(i)(2)	§ 60.334(j) § 60.334(j)(5)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						contains sulfur in excess of 0.8% by weight.	§ 60.334(i) § 60.334(i)(2) § 60.334(j) § 60.334(j)(2)(i) § 60.334(j)(2)(iii)		
GRPTURBINE	EU	40CFR60 GG	NO _x	40 CFR Part 60, Subpart GG	§ 60.332(a)(2) § 60.332(a)(3) § 60.332(f) § 60.332(i) § 60.332(k)	No owner or operator shall discharge into the atmosphere from any stationary gas turbine, any gases which contain nitrogen oxides in excess of the amount as determined from the specified equation.	§ 60.334(a) § 60.334(g) § 60.334(j) § 60.334(j)(1) [G]§ 60.334(j)(1)(i) [G]§ 60.335(a) § 60.335(b)(1) § 60.335(b)(2) § 60.335(b)(4) § 60.335(c)(1) ** See CAM Summary	§ 60.334(a) § 60.334(g)	§ 60.334(j) § 60.334(j)(3) § 60.334(j)(4) § 60.334(j)(5)
SULFURUNIT	EU	30TAC112	SO ₂	30 TAC Chapter 112, Sulfur Compounds	§ 112.7(a) § 112.7(b)	No person may cause, suffer, allow, or permit emissions of SO ₂ to exceed the emission limits specified for stack effluent flow rates < 4,000 scfm as determined by the specified equation.	§ 112.2(a) ** See Periodic Monitoring Summary	§ 112.2(c)	§ 112.2(b)
SULFURUNIT	PRO	60LLL	SO ₂	40 CFR Part 60, Subpart LLL	§ 60.642(b) § 60.642(a)	After demonstrating compliance with Paragraph (a), the owner or operator shall achieve a minimum SO ₂ emission reduction efficiency, Z _c , as determined from Table 2.	[G]§ 60.643(a)(1) § 60.643(a)(2) § 60.643(b) § 60.644(a) [G]§ 60.644(b) § 60.644(c) § 60.644(c)(1) § 60.644(c)(2) § 60.644(c)(3) § 60.644(c)(4) § 60.644(c)(4)(i) § 60.644(c)(4)(iii) § 60.644(c)(4)(iv)	§ 60.647(a)	§ 60.647(b) § 60.647(b)(1) § 60.647(b)(2)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
							§ 60.644(d) [G]§ 60.646(a) [G]§ 60.646(b) [G]§ 60.646(d) § 60.646(f) § 60.646(g) [G]§ 60.648		
TE1	EP	111.111	OPACITY	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(1)(C) § 111.111(a)(1)(E)	Visible emissions from any stationary vent shall not exceed an opacity of 15% averaged over a six minute period for any source with a total flow rate of at least 100,000 acfm unless a CEMS is installed.	[G]§ 111.111(a)(1)(F) ** See Periodic Monitoring Summary	None	None
TE1R	EP	111.111	OPACITY	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(1)(C) § 111.111(a)(1)(E)	Visible emissions from any stationary vent shall not exceed an opacity of 15% averaged over a six minute period for any source with a total flow rate of at least 100,000 acfm unless a CEMS is installed.	[G]§ 111.111(a)(1)(F) ** See Periodic Monitoring Summary	None	None

Additional Monitoring Requirements

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CAM Summary

Unit/Group/Process Information	
ID No.: GRPTURBINE	
Control Device ID No.: SWISTE1	Control Device Type: Steam/Water Injection System
Control Device ID No.: SWISTER1	Control Device Type: Steam/Water Injection System
Applicable Regulatory Requirement	
Name: 40 CFR Part 60, Subpart GG	SOP Index No.: 40CFR60GG
Pollutant: NO _x	Main Standard: § 60.332(a)(2)
Monitoring Information	
Indicator: Steam or Water Flow Rate	
Minimum Frequency: four times per hour	
Averaging Period: one hour	
Deviation Limit: From the latest test data: Use 0 gpm water up to 19.5 MW. After 19.5 MW, there is a linear increase in water injection rate to 3.3 gpm at 22.5 MW.	
CAM Text: Each monitoring device shall be calibrated at a frequency in accordance with the manufacturer's specifications, other written procedures that provide an adequate assurance that the device is calibrated accurately, or at least annually, whichever is more frequent, and shall be accurate to within ± 5%.	

CAM Summary

Unit/Group/Process Information	
ID No.: GRPTURBINE	
Control Device ID No.: SWISTE1	Control Device Type: Steam/Water Injection System
Control Device ID No.: SWISTER1	Control Device Type: Steam/Water Injection System
Applicable Regulatory Requirement	
Name: 40 CFR Part 60, Subpart GG	SOP Index No.: 40CFR60GG
Pollutant: NO _x	Main Standard: § 60.332(a)(2)
Monitoring Information	
Indicator: Fuel Consumption	
Minimum Frequency: four times per hour	
Averaging Period: one hour	
Deviation Limit: From the latest test data: Maximum fuel use = 3754 MMscf/year.	
CAM Text: Each monitoring device shall be calibrated at a frequency in accordance with the manufacturer's specifications, other written procedures that provide an adequate assurance that the fuel flow meter is calibrated accurately, or at least annually, whichever is more frequent, and shall be accurate to within $\pm 5\%$.	

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: SULFURUNIT	
Control Device ID No.: IE1	Control Device Type: Sulfur Recovery Unit with Incinerator
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 112, Sulfur Compounds	SOP Index No.: 30TAC112
Pollutant: SO ₂	Main Standard: § 112.7(a)
Monitoring Information	
Indicator: Combustion Temperature/ Exhaust Gas Temperature	
Minimum Frequency: four times per hour	
Averaging Period: daily	
Deviation Limit: Any monitoring data below 1200 F shall be considered and reported as deviation.	
<p>Periodic Monitoring Text: Measure and record the combustion temperature in the combustion chamber or immediately downstream of the combustion chamber. The minimum combustion temperature is 1200 degrees F (649 degrees C). The monitoring instrumentation shall be maintained, calibrated and operated in accordance with manufacturer's specifications or other written procedures. Any monitoring data below the deviation limit shall be considered and reported as a deviation.</p>	

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: SULFURUNIT	
Control Device ID No.: IE1	Control Device Type: Sulfur Recovery Unit with Incinerator
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 112, Sulfur Compounds	SOP Index No.: 30TAC112
Pollutant: SO ₂	Main Standard: § 112.7(a)
Monitoring Information	
Indicator: SO ₂ Mass Emissions in Pounds per Hour	
Minimum Frequency: four times per hour	
Averaging Period: hourly	
Deviation Limit: Any monitoring data above 16.48 lb/hr SO ₂ shall be considered and reported as deviation.	
<p>Periodic Monitoring Text: A continuous emission monitoring system (CEMS) that measures and records the mass emissions rate of sulfur dioxide expressed in pounds per hour in the exhaust stream of the control device. The CEMS shall be operated in accordance with the monitoring requirements of 40 CFR § 60.13 and the Performance Specifications of 40 CFR Part 60, Appendix B. The maximum SO_x mass emission rate is the applicable or corresponding emission limit. Any monitoring data above the limit from the underlying applicable requirement shall be considered and reported as a deviation.</p>	

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: TE1	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: 111.111
Pollutant: OPACITY	Main Standard: § 111.111(a)(1)(C)
Monitoring Information	
Indicator: Fuel Type	
Minimum Frequency: Annually	
Averaging Period: n/a	
Deviation Limit: Use of fuel other than natural gas.	
Periodic Monitoring Text: Record the type of fuel used by the unit. If an alternate fuel is fired, either alone or in combination with the specified gas, it shall be considered and reported as a deviation.	

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: TE1R	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: 111.111
Pollutant: OPACITY	Main Standard: § 111.111(a)(1)(C)
Monitoring Information	
Indicator: Fuel Type	
Minimum Frequency: Annually	
Averaging Period: n/a	
Deviation Limit: Use of fuel other than natural gas.	
Periodic Monitoring Text: Record the type of fuel used by the unit. If an alternate fuel is fired, either alone or in combination with the specified gas, it shall be considered and reported as a deviation.	

Permit Shield

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Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
COOLTWR	N/A	40 CFR Part 63, Subpart Q	Cooling tower unit does not use chromium-based water treatment chemicals and site is not major for HAPs.
GRPTNK-A	T1, TK-METHANOL, V2-2501, V2-2502, V2-2503, V2-2751, V-2801, V6-1304	30 TAC Chapter 115, Storage of VOCs	Unit is not located in an applicable area.
GRPTNK-A	T1, TK-METHANOL, V2-2501, V2-2502, V2-2503, V2-2751, V-2801, V6-1304	40 CFR Part 60, Subpart Kb	Vessel is less than 75 cubic meters.

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New Source Review Authorization References

The New Source Review authorizations listed in the table below are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Prevention of Significant Deterioration (PSD) Permits	
PSD Permit No.: PSDTX682	Issuance Date: 07/05/2011
Title 30 TAC Chapter 116 Permits, Special Permits, and Other Authorizations (Other Than Permits By Rule, PSD Permits, or NA Permits) for the Application Area.	
Authorization No.: 105474	Issuance Date: 09/20/2012
Authorization No.: 16754	Issuance Date: 07/05/2011
Permits By Rule (30 TAC Chapter 106) for the Application Area	
Number: 106.352	Version No./Date: 09/04/2000
Number: 106.359	Version No./Date: 09/10/2013
Number: 106.371	Version No./Date: 09/04/2000
Number: 106.454	Version No./Date: 11/01/2001
Number: 106.472	Version No./Date: 09/04/2000
Number: 106.476	Version No./Date: 09/04/2000
Number: 106.478	Version No./Date: 09/04/2000
Number: 106.511	Version No./Date: 09/04/2000
Number: 66	Version No./Date: 04/05/1995

New Source Review Authorization References by Emissions Unit

The following is a list of New Source Review (NSR) authorizations for emission units listed elsewhere in this operating permit. The NSR authorizations are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization
COOLTWR	COOLING TOWER	106.371/09/04/2000
DEHY1	GLYCOL DEHYDRATOR 1	16754, PSDTX682
DEHY2	GLYCOL DEHYDRATOR 2	16754, PSDTX682
F1-6	PROCESS FUGITIVES	16754, PSDTX682
FE1	EMERGENCY FLARE	16754, PSDTX682
SULFURUNIT	LOCAT PROCESS	16754, PSDTX682
T1	DEA TANK	106.472/09/04/2000
TE1R	REPLACEMENT TURBINE GENERATOR	16754, PSDTX682
TE1	TURBINE GENERATOR	16754, PSDTX682
TK-METHANOL	METHANOL TANK	106.478/09/04/2000
V2-2501	H-50 OIL TANK	106.472/09/04/2000
V2-2502	FE5.5 TANK	106.472/09/04/2000
V2-2503	25% CAUSTIC TANK	106.472/09/04/2000
V2-2751	CALCIUM NITRATE TANK	106.472/09/04/2000
V-2801	TEG MAKE-UP TANK	106.472/09/04/2000
V6-1304	SULFURIC ACID TANK	106.472/09/04/2000

Appendix A

Acronym List	34
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Acronym List

The following abbreviations or acronyms may be used in this permit:

ACFM	actual cubic feet per minute
AMOC	alternate means of control
ARP	Acid Rain Program
ASTM	American Society of Testing and Materials
B/PA	Beaumont/Port Arthur (nonattainment area)
CAM	Compliance Assurance Monitoring
CD	control device
COMS	continuous opacity monitoring system
CVS	closed-vent system
D/FW	Dallas/Fort Worth (nonattainment area)
DR	Designated Representative
ELP	El Paso (nonattainment area)
EP	emission point
EPA	U.S. Environmental Protection Agency
EU	emission unit
FCAA Amendments	Federal Clean Air Act Amendments
FOP	federal operating permit
GF	grandfathered
gr/100 scf	grains per 100 standard cubic feet
HAP	hazardous air pollutant
H/G/B	Houston/Galveston/Brazoria (nonattainment area)
H ₂ S	hydrogen sulfide
ID No.	identification number
lb/hr	pound(s) per hour
MMBtu/hr	Million British thermal units per hour
MRRT	monitoring, recordkeeping, reporting, and testing
NA	nonattainment
N/A	not applicable
NADB	National Allowance Data Base
NO _x	nitrogen oxides
NSPS	New Source Performance Standard (40 CFR Part 60)
NSR	New Source Review
ORIS	Office of Regulatory Information Systems
Pb	lead
PBR	Permit By Rule
PM	particulate matter
ppmv	parts per million by volume
PSD	prevention of significant deterioration
RO	Responsible Official
SO ₂	sulfur dioxide
TCEQ	Texas Commission on Environmental Quality
TSP	total suspended particulate
TVP	true vapor pressure
U.S.C.	United States Code
VOC	volatile organic compound

Appendix B

Major NSR Summary Table	36
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Major NSR Summary Table

Permit Number: 16754 and PSDTX682			Issuance Date: July 5, 2011				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY**	Spec. Cond.	Spec. Cond.	Spec. Cond.
FE1	Process Flare Normal Operation	CO	328.39	41.57			
FE1	Process Flare Normal Operation	H2S	5.66	0.22			
FE1	Process Flare Normal Operation	NOx	38.97	7.80			
FE1	Process Flare Normal Operation	SO2	531.96	19.98			
FE1	Process Flare Normal Operation	VOC	179.78	14.10	21, 22	21, 22	
FE1	Planned MSS Activities Only	CO	109.92	0.22		4, 23	
FE1	Planned MSS Activities Only	NOx	12.82	0.03		4, 23	
IE1	Lo-Cat Unit Incinerator	CO	11.42	50.00	15, 19	15, 19, 23	15, 19, 24
IE1	Lo-Cat Unit Incinerator	H2S	0.01	0.03	11, 12, 21	11, 12, 21	
IE1	Lo-Cat Unit Incinerator	NOx	4.57	20.00	15	15, 23	15, 24
IE1	Lo-Cat Unit Incinerator	PM10	0.87	3.83	7		
IE1	Lo-Cat Unit Incinerator	SO2	16.48	72.00	7, 15, 19	15, 19, 23	15, 19, 24
IE1	Lo-Cat Unit Incinerator	TRS	1.20	5.25	15	15	15, 24
IE1	Lo-Cat Unit Incinerator	VOC	0.55	2.40	12, 15, 19, 21	12, 15, 19, 21, 23	15, 24
T1	DEA Storage Tank	VOC	0.01	0.01			

Major NSR Summary Table

Permit Number: 16754 and PSDTX682				Issuance Date: July 5, 2011			
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY**	Spec. Cond.	Spec. Cond.	Spec. Cond.
TE1	Turbine Generator, Turbine Replacement and Auxiliary Heater	CO (5)	81.70	358.10	15, 16	15, 16, 23	15, 24
TE1	Turbine Generator, Turbine Replacement and Auxiliary Heater	NOx (5)	85.50	374.80	15, 16, 17	15, 16, 17, 23	15, 24
TE1	Turbine Generator, Turbine Replacement and Auxiliary Heater	PM10	1.98	8.69	7		
TE1	Turbine Generator, Turbine Replacement and Auxiliary Heater	SO2	1.02	4.47	7		
TE1	Turbine Generator, Turbine Replacement and Auxiliary Heater	VOC	0.63	2.76	3	3	3
F1-6	Process Fugitives	H2S	0.01	0.04	3, 26	3, 26	3
F1-6	Process Fugitives	VOC	8.67	38.00	3, 25	3, 25	3

Footnotes: (1) Emission Point Identification – either specific equipment designation or emission point number from plot plan.

(2) Specific point source name. For fugitive sources use area name or fugitive source name.

(3) CO – carbon monoxide, H2S – hydrogen sulfide, NOx – total oxides of nitrogen, PM10 – particulate matter, suspended in the atmosphere including PM10, SO2 – sulfur dioxide, TRS – total reduced sulfur, VOC – volatile organic compounds as defined in 30 TAC 101.1

(4) Emission rate is an estimate and compliance is demonstrated by meeting the requirements of the applicable special conditions and permit application representations.

(5) PSDTX682 authorized emissions

Bryan W. Shaw, Ph.D., *Chairman*
Buddy Garcia, *Commissioner*
Carlos Rubinstein, *Commissioner*
Mark R. Vickery, P.G., *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
Protecting Texas by Reducing and Preventing Pollution

July 5, 2011

MS PEGGY WAISANEN
ENVIRONMENTAL CONTACT
OCCIDENTAL PERMIAN LTD
PO BOX 50250
MIDLAND TX 79710-0250

Re: Permit Amendment and Renewal
Permit Number: 16754
Wasson Carbon Dioxide Removal Plant
Denver City, Yoakum County
Regulated Entity Number: RN100226687
Customer Reference Number: CN600755086
Account Number: YA-0052-H

Dear Ms. Waisanen:

This is in response to your Form PI-1 (General Application for Air Preconstruction Permits and Amendments) and Form PI-1R (General Application for Air Permit Renewals) concerning the proposed amendment and renewal of Permit Number 16754. We understand you propose to update two planned maintenance, startup and shutdown activities and emissions from equipment authorized in this permit.

In accordance with Title 30 Texas Administrative Code § 116.116(b) [30 TAC § 116.116(b)], and based on our review, Permit Number 16754 is hereby amended in accordance with your proposal. This information will be incorporated into the existing permit file.

Planned maintenance, startup, and shutdown for the sources identified on the MAERT have been reviewed and included in the MAERT and specific maintenance activities are identified in the permit special conditions. Any other maintenance activities are not authorized by this permit and will need to obtain separate authorization.

Also, in accordance with 30 TAC § 116.314(a), and based on our review, your permit is hereby renewed. Enclosed is a permit for your facility. Also enclosed are new conditions and a maximum allowable emission rates table. We appreciate your careful review of the special conditions of the permit and assuring that all requirements are consistently met.

Ms. Peggy Waisanen
Page 2
July 5, 2011

Re: Permit Number: 16754

This permit will be in effect for ten years from the date of approval (Commission's final decision). If this permit is appealed and the permittee does not commence any action authorized by this permit during judicial review, the term will not begin until judicial review is concluded.

As of July 1, 2008, all analytical data generated by a mobile or stationary laboratory in support of compliance with air permits must be obtained from a NELAC (National Environmental Laboratory Accreditation Conference) accredited laboratory under the Texas Laboratory Accreditation Program or meet one of several exemptions. Specific information concerning which laboratories must be accredited and which are exempt may be found in 30 TAC § 25.4 and § 25.6.

For additional information regarding the laboratory accreditation program and a list of accredited laboratories and their fields of accreditation, please see the following Web site:

www.tceq.texas.gov/compliance/compliance_support/qa/env_lab_accreditation.html

For questions regarding the accreditation program, you may contact the Texas Laboratory Accreditation Program at (512) 239-3754 or by e-mail at labprgms@tceq.texas.gov.

You may file a **motion to overturn** with the Chief Clerk. A motion to overturn is a request for the commission to review the executive director's decision. Any motion must explain why the commission should review the executive director's decision. According to 30 TAC § 50.139, an action by the executive director is not affected by a motion to overturn filed under this section unless expressly ordered by the commission.

A motion to overturn must be received by the Chief Clerk within 23 days after the date of this letter. An original and 11 copies of a motion must be filed with the Chief Clerk in person, or by mail to the Chief Clerk's address on the attached mailing list. On the same day the motion is transmitted to the Chief Clerk, please provide copies to the applicant, the executive director's attorney, and the Public Interest Counsel at the addresses listed on the attached mailing list. If a motion to overturn is not acted on by the commission within 45 days after the date of this letter, then the motion shall be deemed overruled.

You may also request **judicial review** of the executive director's approval. According to Texas Health and Safety Code § 382.032, a person affected by the executive director's approval must file a petition appealing the executive director's approval in Travis County district court within 30 days after the effective date of the approval. Even if you request judicial review, you still must exhaust your administrative remedies, which includes filing a motion to overturn in accordance with the previous paragraphs.

Ms. Peggy Waisanen
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July 5, 2011

Re: Permit Number: 16754

Thank you for your cooperation in sending us the information necessary to evaluate your operations and for your commitment to air pollution control. If you have any questions, please contact Mr. Stephen Anderson, P.E. at (512) 239-1287 or write to the Texas Commission on Environmental Quality, Office of Permitting and Registration, Air Permits Division, MC-163, P.O. Box 13087, Austin, Texas 78711-3087.

This action is taken under authority delegated by the Executive Director of the TCEQ.

Sincerely,



Steve Hagle, P.E., Director
Air Permits Division
Office of Permitting and Registration
Texas Commission on Environmental Quality

BSH/SEA

Enclosures

cc: Air Section Manager, Region 2 - Lubbock

Project Numbers: 162696 and 162697

SPECIAL CONDITIONS

Permit Numbers 16754 and PSDTX682

EMISSION STANDARDS AND FUEL SPECIFICATIONS

1. This permit authorizes emissions only from those points listed in the attached table entitled "Emission Sources - Maximum Allowable Emission Rates" and the facilities covered by this permit are authorized to emit subject to the emission rate limits on that table and other operating requirements specified in the special conditions.
2. Non-fugitive emissions from relief valves, safety valves, or rupture discs of gases containing volatile organic compounds (VOC) at a concentration of greater than 1 percent are not authorized by this permit unless authorized on the MAERT. Any releases directly to atmosphere from relief valves, safety valves, or rupture discs of gases containing VOC at a concentration greater than 1 weight percent are not consistent with good practice for minimizing emissions with the exception of those listed below:

<u>Valve No.</u>	<u>Service</u>
PSV 201	Fourth State Suction Scrubber
PSV 283A	Lo-Cat Flash Booster Compressor Suction Scrubber
PSV 344	CO ₂ Stripper Tower
PSV 350	CO ₂ Stripper Condenser and Reflux Accumulator
PSV 370	CO ₂ Recovery Tower Feed Separator
PSV 379A and 379B	CO ₂ Recovery Tower
PSV 395	CO ₂ Reflux Accumulator
PSV 424	Monodiethanolamine (MDEA) High-Pressure Flash Tank
PSV 427	MDEA Low-Pressure Flash Tank
PSV 452	CO ₂ High-Pressure Scrubber
PSV 458	CO ₂ Low-Pressure Scrubber
PSV 482-1, 2, and 3	First Stage CO ₂ Compression
PSV 485-1, 2, and 3	Second Stage CO ₂ Compression
PSV 488-1, 2, and 3	Third Stage CO ₂ Compression
PSV 511	First Stage CO ₂ Discharge Scrubber
PSV 515	Second Stage CO ₂ Discharge Scrubber
PSV 522	Third Stage CO ₂ Discharge Scrubber
PSV 525	CO ₂ TEG Contactor
PSV 532	CO ₂ Product Surge Tank
PSV 554	CO ₂ Pipeline Heater

SPECIAL CONDITIONS

Permit Numbers 16754 and PSDTX682

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FEDERAL APPLICABILITY

3. These facilities shall comply with all applicable requirements of the U.S. Environmental Protection Agency (EPA) regulations on Standards of Performance for New Stationary Sources promulgated for the following:
 - A. Stationary Gas Turbines, in Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60), Subparts A and GG, and
 - B. Equipment Leaks of VOC from Onshore Natural Gas Processing Plants in 40 CFR Part 60, Subparts A and KKK.
4. This permit authorizes emissions from the flare designated as EPN FE1 for the following planned maintenance, start-up and shutdown (MSS) activity which is four quarterly turbine inspections per calendar year.

Planned MSS activities not in the above list are not authorized by this permit. These emissions are subject to the maximum allowable emission rates indicated on the MAERT. The performance of each planned maintenance activity and the emissions associated with it shall be recorded and the rolling 12-month emissions shall be updated on a monthly basis. These records shall include at least the following information:

- A. The physical location at which emissions from the planned MSS activity occurred, including the emission point number, common name, and any other identifier for the point at which the emissions were released into the atmosphere;
- B. The type of planned MSS activity and the reason for the planned activity;
- C. The common name and the facility identification number of the facilities at which the planned MSS activity and emissions occurred;
- D. The date and time of the planned MSS activity and its duration;
- E. The estimated quantity of each air contaminant, or mixture of air contaminants, emitted with the data and methods used to determine it. The emissions shall be estimated using the methods identified in the amendment application, PI-1 dated October 19, 2006, consistent with good engineering practice.

SPECIAL CONDITIONS

Permit Numbers 16754 and PSDTX682

Page 3

5. The holder of this permit shall physically identify by labeling all equipment covered by this permit at the property that has the potential of emitting air contaminants. Permitted emission points shall be identified by labeling corresponding to the emission point numbering on the MAERT; or exempt facilities shall be identified by labeling corresponding to the emission point numbering used in the most recent emissions inventory submitted to the TCEQ.
6. Fuel for the auxiliary heater, the Lo-Cat unit incinerator, flare and gas turbines operating under this permit is limited to natural gas containing no more than 5 grains total sulfur per 100 standard cubic feet. Use of any other fuel will require prior approval of the Executive Director of the TCEQ.
7. Opacity of emissions from the Lo-Cat unit incinerator and the gas turbines must not exceed 5 percent averaged over a six-minute period. The opacity shall be determined by the EPA Reference Method 9.
8. During periods of overhaul or planned maintenance of the gas-fired Rolls-Royce RB-211 29080 EGKW Phase 2 Permanent Turbine Generator, the holder of this permit is authorized to replace the permanent turbine with a temporary rental unit with a model which produces equivalent power or less and will emit up to or less than the current permit allowables during the periods of turbine overhaul or maintenance.
 - A. The rental turbine must not be installed until the permanent Rolls-Royce RB-211 29080 EGKW Phase 2 Gas Turbine has been removed for overhaul. Similarly, the overhauled permanent Rolls-Royce (RB-211 29080 EGKW Phase 2) will not be reinstalled until the rental gas turbine has been removed. It will be a violation of this permit to operate the two turbines simultaneously. The rental turbine can only be in use during the period of overhaul or maintenance of the permanent turbine.
 - B. In the event a turbine inspection reveals damage to any of the five modules comprising the turbine, the holder of this permit is authorized to replace the damaged module with an equivalent module subject to the approval of the TCEQ Regional Director who must be notified and provided with satisfactory technical data/information to ensure that the replacement module is identical or equivalent to the damaged module being replaced and that the replacement module will not lead to any increase in emissions from the permitted source.
 - C. The auxiliary heater will run when both turbines are down for overhaul or maintenance or concurrently with the turbine generator or the replacement turbine during start-up and shut down events when the rating of the turbine or turbine replacement is under 10 MW. It will be a violation of this permit to operate the heater and the turbine(s) simultaneously when the turbine or turbine replacement is running over 10 MW.

SPECIAL CONDITIONS

Permit Numbers 16754 and PSDTX682

Page 4

9. The concentration of nitrogen oxides (NO_x) in the turbine stack shall not exceed 95 ppmv on a dry basis and adjusted to 15 percent oxygen as specified in 40 CFR Part 60, Subpart GG. The adjusted NO_x emission level shall be used to determine compliance with this condition.
10. The water injection rate necessary to comply with the concentration limit stated in Special Condition No. 9 shall be determined during the stack sampling required in Special Condition No. 15.
11. A. All acid gases shall be routed to the Lo-Cat sulfur recovery unit during normal operation. Planned MSS activities and emissions are not authorized by this special condition. It is not permissible under any circumstances to vent the acid gas directly to the atmosphere. The waste gas stream from the amine regenerator overhead distillation column shall be directed to the plant inlet scrubber. The waste gas stream from the glycol regenerator vent and glycol flash tank shall be directed to the plant inlet scrubber. Sulfur production at the Lo-Cat unit shall not exceed 16.9 long tons per day (LTPD).
- B. The minimum sulfur recovery efficiency for the Lo-Cat unit shall be 98.5 percent. The sulfur recovery efficiency shall be determined by calculation as follows:

$$\text{Efficiency} = \frac{(\text{S recovered}) * (100)}{(\text{S acid gas})}$$

where: efficiency = sulfur recovery efficiency, percent

$$\begin{aligned}\text{S recovered} &= \text{S produced, LTPD} \\ \text{S acid gas} &= \text{S recovered} + \text{S stack} \\ \text{S stack} &= \text{sulfur in the incinerator stack, LTPD}\end{aligned}$$

The average sulfur emission reduction efficiency (sulfur recovery efficiency) shall be demonstrated for each 24-hour period by a sulfur mass balance calculation using data obtained from the incinerator stack SO₂ monitor, stack mass flow rate and sulfur production records. Records and copies of the compliance calculations shall be maintained on-site for a period of at least two years and made readily available upon request to representatives of the TCEQ.

- C. The Lo-Cat incinerator shall control 99.50 percent of the VOC contained in the incoming waste gas stream sent to the Lo-Cat unit.

SPECIAL CONDITIONS

Permit Numbers 16754 and PSDTX682

Page 5

12. The Lo-Cat unit incinerator firebox temperature shall be maintained at a temperature of 1470°F or greater. The Lo-Cat incinerator firebox exit temperature shall be continuously monitored and recorded when waste gas is directed to it. The hourly average temperature in, or immediately downstream of, the incinerator firebox shall be maintained at or above 1470°F. The temperature measurement device shall monitor the temperature at least 4 equally spaced times each hour and the hourly average shall be recorded.

The temperature monitor shall be installed, calibrated at least annually and maintained according to the manufacturer's specifications. The device shall have an accuracy of the greater of ± 2 percent of the temperature being measured expressed in degrees Celsius or $\pm 2.5^\circ\text{C}$.

13. The in-stack concentration of carbon monoxide (CO) from the Lo-Cat unit incinerator shall not exceed 220 ppmv calculated as an hourly average. If the in-stack CO concentration does exceed this permit limit, then additional stack sampling may be required to determine whether or not adequate combustion of the organic compounds is being achieved.

INITIAL DETERMINATION OF COMPLIANCE

14. Sampling ports and platform(s) shall be incorporated into the design of the Lo-Cat unit incinerator and the gas turbine stacks according to the specifications set forth in the attachment entitled AChapter 2, Stack Sampling Facilities. Alternate sampling facility designs may be submitted for approval by the Executive Director of the TCEQ.
15. The holder of this permit shall perform stack sampling and other testing as required to establish the actual pattern and quantities of air contaminants being emitted into the atmosphere from the gas turbine and the Lo-Cat incinerator. The holder of this permit is responsible for providing sampling and testing facilities and conducting the sampling and testing operations at his expense.
 - A. The TCEQ Lubbock Regional Office shall be contacted as soon as testing is scheduled but not less than 45 days prior to sampling to schedule a pretest meeting. The notice shall include:
 - (1) Date for pretest meeting.
 - (2) Date sampling will occur.
 - (3) Name of firm conducting sampling.
 - (4) Type of sampling procedure to be used in sampling.
 - (5) Method or procedure to be used in sampling.

SPECIAL CONDITIONS

Permit Numbers 16754 and PSDTX682

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The purpose of the pretest meeting is to review the necessary sampling and testing procedures, to provide the proper data forms for recording pertinent data, and to review the format procedures for submitting the test reports.

A written proposed description of any deviation from sampling procedures specified in permit conditions or the TCEQ or EPA sampling procedures shall be made available to the TCEQ at or prior to the pretest meeting. The TCEQ Regional Director shall approve or disapprove of any deviation from specified sampling procedures. Requests to waive testing for any pollutant specified in this special condition shall be submitted to the TCEQ Office of Permitting and Registration, Air Permits Division.

Test waivers and alternate/equivalent procedure proposals for New Source Performance Standards (NSPS) testing which must have the EPA approval shall be submitted to the TCEQ Compliance Support Division in Austin.

- B. Air contaminants emitted from Emission Point No. (EPN) TE1 to be tested for include (but are not limited to) NO_x and CO.

The EPN for the permanent turbines and rental turbines will be designated as TE1. Testing of the gas turbine shall be conducted at four turbine loads including the minimum and peak operating loads. This data will be used to construct a linear water-to-fuel ratio plot which shall be used to determine compliance with the NO_x emission limit specified in Special Condition No. 9.

- C. Air contaminants emitted from the Lo-Cat unit incinerator to be tested for include (but are not limited to) NO_x, CO, SO₂, VOC, and total reduced sulfur.
- D. Sampling of the gas turbine and of the Lo-Cat unit incinerator shall occur within 60 days after the facility achieves maximum production but not later than 180 days after initial start-up of the facility and at such other times as may be required by the Executive Director of the TCEQ. Requests for additional time to perform sampling shall be submitted to the TCEQ Regional Office. Additional time to comply with the requirements of 40 CFR Part 60 and 40 CFR Part 61 cannot be granted.
- E. Sampling as specified in paragraph b of this special condition shall be performed each time any of the following occurs:

SPECIAL CONDITIONS

Permit Numbers 16754 and PSDTX682

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- (1) The first time a rental turbine generator is installed for operation during an overhaul or maintenance of the permanent turbine. This will be a one-time-only test for each different model of the rental turbine generator to demonstrate initial compliance with the emission limits of the permit. If a previously-rented turbine generator, tested as specified above, is re-rented, it will be subject only to the quarterly tests specified in Special Condition No. 16 for Continuous Demonstration of Compliance.
 - (2) The first time the permanent turbine is reinstalled after the first overhaul or maintenance.
 - (3) The replacement turbine modules must be identical to the damaged module being replaced in order not to be tested as specified in Special Condition No. 15E.
- F. One copy of the final sampling report shall be forwarded to the TCEQ Lubbock Regional Office within 60 days after sampling is completed. Sampling reports shall comply with the attached provisions of Chapter 14 of the TCEQ Sampling Procedures Manual.

CONTINUOUS DEMONSTRATION OF COMPLIANCE

16. The holder of this permit shall perform stack sampling at least quarterly to establish the quantities of NO_x and CO being emitted into the atmosphere from EPN TE1 or EPN TE1-R. Emissions shall be measured and recorded in the as-found operating condition, except no compliance determination shall be established during engine start-up or shutdown conditions. Emission testing shall be performed as soon as practicable but no later than seven days following the installation of a rental turbine or the reinstallation of an overhauled turbine.

While the engine is operating between 50 and 100 percent of maximum load, compliance with the NO_x and CO permit limits shall be demonstrated. The use of portable analyzers specifically designed for measuring NO_x and CO concentrations in ppmv is acceptable for this evaluation. A hot-air probe or equivalent shall be used with the analyzer to prevent damage to the probes because of high stack temperatures. Three sets of measurements should be averaged to determine the concentrations. Prior to and following the measurements, the portable analyzer shall be checked for accuracy using an audit gas that conforms to specifications in 40 CFR Part 60, Appendix F, Section 5.1.2(3). Any other method approved by the TCEQ Regional Director is also acceptable.

SPECIAL CONDITIONS

Permit Numbers 16754 and PSDTX682

Page 8

17. The holder of this permit shall install and operate a continuous monitoring system to monitor and record natural gas and water consumption in the turbine. This system shall be accurate to ± 5 percent and shall be approved by the Executive Director of the TCEQ. Any one-hour period of turbine operation, except for start-up, during which the water injection rate falls below the rate determined in Special Condition Nos. 10 and 15 may, at the discretion of the TCEQ, be used to determine violations of the emission limitations of Special Condition No. 9.
18. The testing required in Special Condition Nos. 15 and 16 shall constitute the methods for demonstrating continuous compliance with the standards for the gas turbines. If the NO_x and CO emissions are determined once per quarter, compliance in each quarter will be based on the data collected once per quarter. Compliance with the emission limitations may also be determined by any TCEQ compliance sampling method.
19. The holder of this permit shall install, calibrate, and maintain a continuous emission monitoring system (CEMS) to measure and record the in-stack concentration of CO and SO_2 from the Lo-Cat unit incinerator.
 - A. Each CEMS shall meet the design and performance specifications, pass the field tests, and meet the installation requirements and the data analysis and reporting requirements specified in the applicable Performance Specification Nos. 1 through 7, 40 CFR Part 60, Appendix B. For CO monitor certification, calibration error testing as specified by the TCEQ shall be performed. If there are no applicable performance specifications in 40 CFR Part 60, Appendix B, contact the TCEQ in Austin for requirements to be met.
 - B. The systems shall be zeroed and spanned daily and corrective action taken when the 24-hour span drift exceeds two times the amounts specified in 40 CFR 60, Appendix B, or as specified by the TCEQ if not specified in Appendix B. Zero and span is not required on weekends and plant holidays if instrument technicians are not normally scheduled on those days, unless the monitor is required by a subpart of NSPS or National Emission Standards for Hazardous Air Pollutants (NESHAP), in which case zero and span shall be done daily without exception.

Each monitor shall be quality-assured at least quarterly in accordance with 40 CFR Part 60, Appendix F, Procedure 1, Section 5.1.2. For non-NSPS sources, an equivalent method approved by the TCEQ may be used.

SPECIAL CONDITIONS

Permit Numbers 16754 and PSDTX682

Page 9

- C. All cylinder gas audit exceedances of ± 15 percent accuracy and any CEMS downtime shall be reported to the appropriate TCEQ Regional Director, and necessary corrective action shall be taken. Supplemental stack concentration measurements may be required at the discretion of the appropriate TCEQ Regional Director.
 - D. The monitoring data collected shall be reduced to hourly average concentrations in ppm at least once every day using a minimum of four equally-spaced data points over each one-hour period. The individual average concentrations shall be reduced to units of the permit allowable emission rates in pounds per hour of CO and SO₂ at least once every week.
 - E. For NSPS sources subject to Appendix F, the appropriate TCEQ Regional Office shall be notified at least 30 days prior to each annual relative accuracy testing audit in order to provide them the opportunity to observe the testing.
20. The testing required in Special Condition No. 15 and the CEMS required by Special Condition No. 19 shall constitute the methods for demonstrating continuous compliance with the standards for the Lo-Cat unit incinerator, including compliance with Special Condition Nos. 1, 12 and 13. For the Lo-Cat incinerator, if the CO emissions are determined once per hour, compliance in each hour will be based on the data collected once per hour. Compliance with the emission limitations may also be determined by any TCEQ compliance sampling method.
21. The following requirements apply to capture systems for the flare shown as EPN FE1 and Lo-Cat Incinerator shown as EPN IE1.
- A. If used to control pollutants designated as VOC, then conduct a once a month visual, audible and/or olfactory inspection of the capture system to verify there are no leaking components in each capture system;
 - B. Each control device shall not have a bypass.
 - C. Records of the inspections required shall be maintained and if the results of any of the above inspections are not satisfactory, the permit holder shall promptly take necessary corrective action.
22. The flare designated as EPN FE1 shall be designed and operated in accordance with the following requirements:

SPECIAL CONDITIONS

Permit Numbers 16754 and PSDTX682

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- A. The flare system shall be designed such that the combined assist natural gas and waste stream to each flare meets the 40 CFR § 60.18 specifications of minimum heating value and maximum tip velocity under normal flow conditions. Any planned maintenance, startup and shutdown activities and emissions are not authorized by this special condition for equipment authorized in this NSR permit. The heating value and velocity requirements shall be satisfied during operations authorized by this permit. Flare testing per 40 CFR § 60.18(f) may be requested by the appropriate regional office (or is required per NSPS Subpart) to demonstrate compliance with these requirements.
- B. The flare shall be operated with a flame present at all times and/or have a constant pilot flame. The pilot flame shall be continuously monitored by a thermocouple or an infrared monitor. The time, date and duration of any loss of pilot flame shall be recorded. Each monitoring device shall be accurate to, and shall be calibrated at a frequency in accordance with the manufacturer's specifications.
- C. The flare shall be operated with no visible emissions except periods not to exceed a total of five minutes during any two consecutive hours.
- D. 100 million (MM) standard cubic feet per rolling twelve months of natural gas spikes waste gas shall be directed to this flare for emission abatement. 12 MM standard cubic feet per rolling twelve months of no flare points waste gas shall be directed to this flare for emission abatement. No planned MSS activities and emissions are authorized by this special condition. Records shall be updated on a semi-annual basis by the permit holder to demonstrate with this representation. The records shall be maintained at the plant site.

RECORDKEEPING

- 23. The following records shall be made and maintained at the plant site by the holder of this permit.
 - A. All CEMS monitoring data and quality-assured data.
 - B. Written records of data used in constructing the linear water-to-fuel ratio plot specified by Special Condition No. 15B for use in determining compliance with the NO_x emission limit.

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- C. Written records of the results of all compliance testing applicable to the permanent turbine, the rental unit, and the Lo-Cat unit incinerator.
- D. Written records of the occurrence and duration of any malfunction in the operation of the permanent turbine, the rental unit, and the Lo-Cat unit incinerator.
- E. Written records of Lo-Cat unit incinerator fire box temperature and the hours of operation of the Lo-Cat unit incinerator.
- F. Written records of the turbine water-to-fuel ratio and the hours of operation of the turbine engine and the auxiliary heater.
- G. Weekly records of the flare waste gas flow rate and sulfur content.
- H. Records showing which turbine (permanent or rental) is in service and the dates when the turbine changes take place shall be maintained.
- I. Records of the maintenance events and emissions associated with it shall be maintained.

REPORTING

- 24. The holder of this permit shall submit annual reports to the TCEQ Lubbock Regional Office and the TCEQ Office of Permitting and Registration, Air Permits Division in Austin. Such reports are required for each source covered by this permit subject to Special Condition Nos. 9 and 13. Each report shall contain the results of all testing required in Special Condition Nos. 15 and 16.

PROCESS FUGITIVE PROGRAMS

- 25. Piping, Valves, Flanges, Connectors, Pumps and Compressors in VOC Service subject to NSPS Subpart KKK - 28M
 - A. These conditions shall not apply (1) where the VOC has an aggregate partial pressure or vapor pressure of less than 0.5 pound per square inch, absolute (psia) at 100EF or at maximum process operating temperature if less than 100EF or (2) where the operating pressure is at least 5 kilopascals (0.725 psi) below ambient pressure. Equipment excluded from this condition shall be identified in a list or by one of the methods described below to be made readily available upon request.

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The exempted components may be identified by one or more of the following methods:

- i. piping and instrumentation diagram (PID); or
 - ii. a written or electronic database.
- B. Construction of new and reworked piping, valves, pump systems, and compressor systems shall conform to applicable American National Standards Institute (ANSI), American Petroleum Institute (API), American Society of Mechanical Engineers (ASME), or equivalent codes.
- C. New and reworked underground process pipelines shall contain no buried valves-such that fugitive emission monitoring is rendered impractical. New and reworked buried connectors shall be welded.
- D. To the extent that good engineering practice will permit, new and reworked valves and piping connections shall be so located to be reasonably accessible for leak-checking during plant operation. Difficult-to-monitor and unsafe-to-monitor valves, as defined by Title 30 Texas Administrative Code Chapter 115 (30 TAC Chapter 115), shall be identified in a list to be made readily available upon request. The difficult-to-monitor and unsafe-to-monitor valves may be identified by one or more of the methods described in subparagraph A above. If an unsafe-to-monitor component is not considered safe to monitor within a calendar year, then it shall be monitored as soon as possible during safe-to-monitor times. A difficult-to-monitor component for which quarterly monitoring is specified may instead be monitored annually.
- E. New and reworked piping connections shall be welded or flanged. Screwed connections are permissible only on piping smaller than two-inch diameter. Gas or hydraulic testing of the new and reworked piping connections at no less than operating pressure shall be performed prior to returning the components to service or they shall be monitored for leaks using an approved gas analyzer within 15 hours of the components being returned to service. Adjustments shall be made as necessary to obtain leak-free performance. Connectors shall be inspected by visual, audible, and/or olfactory means at least weekly by operating personnel walk-through.

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Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve to seal the line so that no leakage occurs. Except during sampling, both valves shall be closed. If the removal of a component for repair or replacement results in an open-ended line or valve, it is exempt from the requirement to install a cap, blind flange, plug, or second valve for 24 hours. If the repair or replacement is not completed within 24 hours, the line or valve must have a cap, blind flange, plug, or second valve installed.

Lines required by the Railroad Commission of Texas to have threaded connections are exempt from the requirement to be welded or flanged.

- F. Accessible valves shall be monitored by leak-checking for fugitive emissions at least quarterly using an approved gas analyzer. Sealless/leakless valves (including, but not limited to, welded bonnet bellows and diaphragm valves) and relief valves equipped with a rupture disc upstream or venting to a control device are not required to be monitored. For valves equipped with rupture discs, a pressure-sensing device shall be installed between the relief valve and rupture disc to monitor disc integrity. All leaking discs shall be replaced at the earliest opportunity but no later than the next process shutdown. A check of the reading of the pressure-sensing device to verify disc integrity shall be performed at least quarterly and recorded in the unit log.

The gas analyzer shall conform to requirements listed in Method 21 of 40 CFR Part 60, Appendix A. The gas analyzer shall be calibrated with methane. In addition, the response factor of the instrument for a specific VOC of interest shall be determined and meet the requirements of Section 8 of Method 21. If a mixture of VOCs are being monitored, the response factor shall be calculated for the average composition of the process fluid. If a response factor less than 10 cannot be achieved using methane, then the instrument may be calibrated with one of the VOC to be measured or any other VOC so long as the instrument has a response factor of less than 10 for each of the VOC to be measured.

- G. Except as may be provided for in the special conditions of this permit, all pump, compressor and agitator seals shall be monitored with an approved gas analyzer at least quarterly or be equipped with a shaft sealing system that prevents or detects emissions of VOC from the seal. Seal systems designed and operated to prevent emissions or seals equipped with an automatic seal failure detection and alarm system need not be monitored. Seal systems that prevent emissions may include (but are not limited to) dual pump seals with barrier fluid at higher pressure than process pressure or seals degassing to vent control systems kept in good working order.

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Submerged pumps or sealless pumps (including, but not limited to, diaphragm, canned, or magnetic-driven pumps) may be used to satisfy the requirements of this condition and need not be monitored.

- H. Damaged or leaking valves, connectors, compressor seals, agitator seals, and pump seals found to be emitting VOC in excess of 10,000 parts per million by volume (ppmv) or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired. A first attempt to repair the leak must be made within 5 days. Records of the first attempt to repair shall be maintained. Every reasonable effort shall be made to repair a leaking component as specified in this paragraph within 15 days after the leak is found. If the repair of a component would require a unit shutdown, the repair may be delayed until the next scheduled shutdown. All leaking components which cannot be repaired until a scheduled shutdown shall be identified for such repair by tagging. At the discretion of the TCEQ Executive Director or designated representative, early unit shutdown or other appropriate action may be required based on the number and severity of tagged leaks awaiting shutdown.
 - I. Records of repairs shall include date of repairs, repair results, justification for delay of repairs, and corrective actions taken for all components. Records of instrument monitoring shall indicate dates and times, test methods, and instrument readings. Records of physical inspections shall be noted in the operator's log or equivalent.
 - J. Fugitive emission monitoring required by an applicable New Source Performance Standard (NSPS), 40 CFR Part 60, or an applicable National Emission Standard for Hazardous Air Pollutants (NESHAP), 40 CFR Part 61, may be used in lieu of Items F through I of this condition.
 - K. Compliance with the requirements of this condition does not assure compliance with requirements of NSPS or NESHAP and does not constitute approval of alternate standards for these regulations.
26. Piping, Valves, Flanges, Connectors, Pumps and Compressors in Hydrogen Sulfide (H₂S) Service
- A. Visual, audio and olfactory checks for H₂S leaks within the operating area shall be made at least once per day or the permit holder shall install and operate an ambient property line monitoring network to detect H₂S. The ambient monitors shall be capable of detecting and alarming H₂S concentrations on ten parts per million by volume. Operations personnel shall perform an initial on-site inspection of the facility within twenty-four hours of initial alarm.

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B. Immediately, but no later than one hour upon detection of a leak, plant personnel shall take the following actions:

- (1) Isolate the leak.
- (2) Commence repair or replacement of the leaking component.
- (3) Use a leak collection/containment system to prevent the leak until repair or replacement can be made if immediate repair is not possible.

Date and time of each inspection shall be noted in the operator's log or equivalent. Records shall be maintained at the plant site of all repairs and replacements made due to leaks. These records shall be made available to representatives of the TCEQ upon request.

Dated July 5, 2011

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Numbers 16754 and PSDTX682

This table lists the maximum allowable emission rates and all sources of air contaminants on the applicant's property covered by this permit. The emission rates shown are those derived from information submitted as part of the application for permit and are the maximum rates allowed for these facilities. Any proposed increase in emission rates may require an application for a modification of the facilities covered by this permit.

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates*</u>	
			lb/hr	TPY**
FE1	Process Flare Normal Operation	CO	328.39	41.57
		H ₂ S	5.66	0.22
		NO _x	38.97	7.80
		SO ₂	531.96	19.98
		VOC	179.78	14.10
	Planned MSS Activities Only	CO	109.92	0.22
		NO _x	12.82	0.03
	Lo-Cat Unit Incinerator	CO	11.42	50.00
		H ₂ S	0.01	0.03
		NO _x	4.57	20.00
		PM ₁₀	0.87	3.83
		SO ₂	16.48	72.00
		TRS	1.20	5.25
		VOC	0.55	2.40
T1	DEA Storage Tank	VOC	0.01	0.01
TE1	Turbine Generator, Turbine Replacement and Auxiliary Heater	CO (5)	81.70	358.10
		NO _x (5)	85.50	374.80
		PM ₁₀	1.98	8.69
		SO ₂	1.02	4.47
		VOC	0.63	2.76
F1-6	Process Fugitives (4)	H ₂ S	0.01	0.04
		VOC	8.67	38.00

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

- (1) Emission point identification - either specific equipment designation or emission point number from plot plan.
- (2) Specific point source name. For fugitive sources use area name or fugitive source name.
- (3)
 - CO - carbon monoxide
 - H₂S - hydrogen sulfide
 - NO_x - total oxides of nitrogen
 - PM₁₀ - particulate matter, suspended in the atmosphere, including PM₁₀.
 - SO₂ - sulfur dioxide
 - TRS - total reduced sulfur
 - VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
- (4) Emission rate is an estimate and compliance is demonstrated by meeting the requirements of the applicable special conditions and permit application representations.
- (5) PSDTX682 authorized emissions.

* Emission rates are based on and the facilities are limited by the following maximum operating schedule:

Hrs/day 24 Days/week 7 Weeks/year 52

** Compliance with annual emission limits is based on a rolling 12-month period.

Dated July 5, 2011